

AMENDMENTS TO THE CLAIMS

1. (original) A composition for enhancing contrast of one or more areas of a subject for X-ray imaging when administered to a subject, comprising:

sterically stabilized liposomes containing or associated with one or more nonradioactive contrast-enhancing agents.

2. (original) The composition of claim 1, where the X-ray imaging is computed tomography.

3. (original) The composition of claim 1, where the contrast-enhancing agents are iodinated ionic or iodinated nonionic compounds.

4. (original) The composition of claim 3, where a suspension of the sterically stabilized liposomes has a concentration of at least 30 milligrams of iodine per milliliter of the suspension.

5. (original) The composition of claim 1, where an average diameter of the liposomes in the composition is less than about 150 nanometers.

6. (original) The composition of claim 1, where an average diameter of the liposomes in the composition is less than about 120 nanometers.

7. (original) The composition of claim 1, where the composition is capable of being administered to the bloodstream of the subject.

8. (original) The composition of claim 7, where the composition provides an enhanced contrast that remains detectable at least 30 minutes after administration.

9. (original) The composition of claim 7, where the composition provides an enhanced contrast in at least part of a vasculature or an organ of a subject that is increased by at least 50 Hounsfield units.

10. (original) The composition of claim 1, where the sterically stabilized liposomes are PEGylated liposomes.

11. (original) The composition of claim 1, where the sterically stabilized liposomes are targeted liposomes.

12. (original) A composition for use in computed tomography of a subject, comprising:
one or more iodinated nonradioactive contrast-enhancing agents contained within or associated with PEGylated liposomes, where intravenous administration of an amount of the composition to the subject provides enhanced contrast of at least 50 Hounsfield units in at least part of a vasculature or an organ of the subject at least 30 minutes after administration.

13. (original) The composition of claim 12, where a milliliter of the composition contains at least 30 milligrams of iodine.

14. (original) A pharmaceutical composition, comprising one or more compositions of claim 1, wherein the pharmaceutical composition is in a form that is capable of being injected intravenously into a subject.

15. (original) A method comprising:
selecting one or more nonradioactive contrast-enhancing agents; and
forming sterically stabilized liposomes in the presence of the nonradioactive contrast-enhancing agents to provide liposomes containing or associated with one or more contrast-enhancing agents.

16. (original) The method of claim 15, where one milliliter of a suspension of the sterically stabilized liposomes has at least 30 milligrams of iodine.

17. (original) The method of claim 15, where an average diameter of the sterically stabilized liposomes is less than about 120 nanometers.

18. (original) The method of claim 15, where liposomes are formed in the presence of one or more contrast-enhancing agents using a method selected from a group consisting of hydration of dried lipids in the presence of one or more contrast-enhancing agents, mixing a volatile organic solution of lipids with an aqueous solution of one or more contrast-enhancing agents causing evaporation of the organic solution, and dialysis of an aqueous solution of lipids and detergents and/or surfactants to remove the detergents and/or surfactants and form liposomes in the presence of one or more contrast-enhancing agents.

19. (original) A method comprising:
forming sterically stabilized liposomes; and
drawing one or more nonradioactive contrast-enhancing agents into the liposomes to provide liposomes containing or associated with one or more contrast-enhancing agents.
20. (original) The method of claim 19, where one milliliter of a suspension of the sterically stabilized liposomes has at least 30 milligrams of iodine.
21. (original) The method of claim 19, where an average diameter of the sterically stabilized liposomes is less than about 120 nanometers.
22. (original) A method of imaging a subject, the method comprising:
introducing a composition of sterically stabilized liposomes containing or associated with one or more nonradioactive contrast-enhancing agents into the bloodstream of a subject; and
generating images of a region of interest in the subject where the contrast-enhancing agents cause a contrast enhancement in the region of interest by at least 50 Hounsfield units for a duration of longer than 5 minutes.
23. (original) The method of claim 22, where the generating includes acquiring one or more images by computed tomography.

24. (original) The method of claim 23, where the images are used for one or more of detection, quantification, characterization, classification or monitoring, of ischemia, myocardial microcirculatory insufficiencies, tumors, cancers, healing and inflammation.

25. (new) A composition including at least one sterically stabilized liposome, comprising:

at least one first lipid or phospholipid;

at least one second lipid or phospholipid which is derivatized with one or more polymers; and

at least one sterically bulky excipient capable of stabilizing the sterically stabilized liposome;

wherein the at least one sterically stabilized liposome is less than about 150 nanometers in average diameter, and wherein the at least one sterically stabilized liposome is associated with at least one nonradioactive contrast enhancing agent.

26. (new) The composition of claim 25, wherein the at least one first lipid or phospholipid includes 1,2-dipalmitoyl-sn-glycero-3-phosphocholine (DPPC).

27. (new) The composition of claim 25, wherein the at least one second lipid or phospholipid which is derivatized with one or more polymers includes [N-(carboxymethoxypolyethyleneglycol 2000)-1,2-distearoyl-sn-glycero-3-phosphatidylcholine] (DSPE-MPEG2000).

28. (new) The composition of claim 25, wherein the at least one sterically bulky excipient is chosen from one or more of sterols, fatty alcohols and fatty acids, or a mixture thereof.
29. (new) The composition of claim 28, wherein the at least one sterically bulky excipient is cholesterol.
30. (new) The composition of claim 25, wherein the at least one sterically stabilized liposome is not autoclaved.
31. (new) The composition of claim 25, further comprising a suspension medium that is essentially free of contrast enhancing agent.
32. (new) The composition of claim 25, wherein the at least one first lipid or phospholipid is present in the amount of about 55 to about 75 mol %; the at least one second lipid or phospholipid which is derivatized with one or more polymers is present in the amount of about 1 to about 20 mol %; and the at least one sterically bulky excipient is present in the amount of about 25 to about 40 mol %.
33. (new) The composition of claim 32, wherein the at least one first lipid or phospholipid is hydrogenated soy phosphatidylcholine, which is present in an amount of about 58 to about 59 mol %; the at least one second lipid or phospholipid which is derivatized with one or more polymers is [N-(carboxymethoxypolyethyleneglycol 2000)-1,2-distearoyl-sn-glycero-3-phosphatidylcholine] (DSPE-MPEG2000), which is present in the amount of about 5 to about 6

mol %; and the at least one sterically bulky excipient is cholesterol, which is present in the amount of about 36 to about 37 mol %.